## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09 | 856, 8| 2BSource:  $|F \omega | 6$ Date Processed by STIC:  $|V \otimes F| = 16$ 

## ENTERED



TEW

IFW16

RAW SEQUENCE LISTING DATE: 11/07/2005
PATENT APPLICATION: US/09/856,812B TIME: 12:22:40

Input Set : A:\L0461.70115US00 SEQUENCE LISTING (SECOND REVISION).txt

```
3 <110> APPLICANT: Huang, Lan-Qing
         Van Pel, Aline
 5
         Brasseur, Francis
 6
         De Plaen, Etienne
         Boon, Thierry
 9 <120> TITLE OF INVENTION: Tumour Rejection Antigens
11 <130> FILE REFERENCE: L0461.70115US00
13 <140> CURRENT APPLICATION NUMBER: US 09/856,812B
14 <141> CURRENT FILING DATE: 2001-09-07
16 <150> PRIOR APPLICATION NUMBER: GB 9826143.1
17 <151> PRIOR FILING DATE: 1998-11-27
19 <160> NUMBER OF SEQ ID NOS: 57
21 <170> SOFTWARE: PatentIn Ver. 3.2
23 <210> SEO ID NO: 1
24 <211> LENGTH: 369
25 <212> TYPE: PRT
26 <213> ORGANISM: Homo sapiens
28 <400> SEQUENCE: 1
29 Met Pro Arg Ala Pro Lys Arg Gln Arg Cys Met Pro Glu Glu Asp Leu
32 Gln Ser Gln Ser Glu Thr Gln Gly Leu Glu Gly Ala Gln Ala Pro Leu
                20
                                     25
35 Ala Val Glu Glu Asp Ala Ser Ser Ser Thr Ser Thr Ser Ser Ser Phe
36
                                 40
38 Pro Ser Ser Phe Pro Ser Ser Ser Ser Ser Ser Ser Ser Cys Tyr
                            55
41 Pro Leu Ile Pro Ser Thr Pro Glu Glu Val Ser Ala Asp Asp Glu Thr
                        70
44 Pro Asn Pro Pro Gln Ser Ala Gln Ile Ala Cys Ser Ser Pro Ser Val
                    85
47 Val Ala Ser Leu Pro Leu Asp Gln Ser Asp Glu Gly Ser Ser Ser Gln
48
               100
50 Lys Glu Glu Ser Pro Ser Thr Leu Gln Val Leu Pro Asp Ser Glu Ser
51
           115
                               120
                                                    125
53 Leu Pro Arg Ser Glu Ile Asp Glu Lys Val Thr Asp Leu Val Gln Phe
                           135
56 Leu Leu Phe Lys Tyr Gln Met Lys Glu Pro Ile Thr Lys Ala Glu Ile
57 145
                       150
                                            155
59 Leu Glu Ser Val Ile Lys Asn Tyr Glu Asp His Phe Pro Leu Leu Phe
                   165
                                        170
62 Ser Glu Ala Ser Glu Cys Met Leu Leu Val Phe Gly Ile Asp Val Lys
65 Glu Val Asp Pro Thr Gly His Ser Phe Val Leu Val Thr Ser Leu Gly
```

Input Set : A:\L0461.70115US00 SEQUENCE LISTING (SECOND REVISION).txt

```
66
          195
                              200
68 Leu Thr Tyr Asp Gly Met Leu Ser Asp Val Gln Ser Met Pro Lys Thr
                          215
71 Gly Ile Leu Ile Leu Ile Leu Ser Ile Ile Phe Ile Glu Gly Tyr Cys
                      230
                                          235
74 Thr Pro Glu Glu Val Ile Trp Glu Ala Leu Asn Met Met Gly Leu Tyr
                  245
                                      250
77 Asp Gly Met Glu His Leu Ile Tyr Gly Glu Pro Arg Lys Leu Leu Thr
                                  265
              260
80 Gln Asp Trp Val Gln Glu Asn Tyr Leu Glu Tyr Arg Gln Val Pro Gly
                              280
83 Ser Asp Pro Ala Arg Tyr Glu Phe Leu Trp Gly Pro Arg Ala His Ala
                          295
86 Glu Ile Arg Lys Met Ser Leu Leu Lys Phe Leu Ala Lys Val Asn Gly
                      310
                                          315
89 Ser Asp Pro Arg Ser Phe Pro Leu Trp Tyr Glu Glu Ala Leu Lys Asp
                  325
                                     330
92 Glu Glu Glu Arg Ala Gln Asp Arg Ile Ala Thr Thr Asp Asp Thr Thr
             340
                                  345
95 Ala Met Ala Ser Ala Ser Ser Ser Ala Thr Gly Ser Phe Ser Tyr Pro
                              360
98 Glu
102 <210> SEQ ID NO: 2
103 <211> LENGTH: 234
104 <212> TYPE: PRT
105 <213> ORGANISM: Homo sapiens
107 <400> SEQUENCE: 2
108 Met Leu Leu Gly Gln Lys Ser Gln Arg Tyr Lys Ala Glu Glu Gly Leu
111 Gln Ala Gln Gly Glu Ala Pro Gly Leu Met Asp Val Gln Ile Pro Thr
                                    25
114 Ala Glu Glu Gln Lys Ala Ala Ser Ser Ser Thr Leu Ile Met Gly
117 Thr Leu Glu Glu Val Thr Asp Ser Gly Ser Pro Ser Pro Pro Gln Ser
                            55
120 Pro Glu Gly Ala Ser Ser Leu Thr Val Thr Asp Ser Thr Leu Trp
121 65
                                            75
123 Ser Gln Ser Asp Glu Gly Ser Ser Ser Asn Glu Glu Glu Gly Pro Ser
                    85
                                         90
126 Thr Ser Pro Asp Pro Ala His Leu Glu Ser Leu Phe Arg Glu Ala Leu
                                   105
129 Asp Glu Lys Val Ala Glu Leu Val Arg Phe Leu Leu Arg Lys Tyr Gln
130 115
                               120
132 Ile Lys Glu Pro Val Thr Lys Ala Glu Met Leu Glu Ser Val Ile Lys
133
       130
                           135
135 Asn Tyr Lys Asn His Phe Pro Asp Ile Phe Ser Lys Ala Ser Glu Cys
                                           155
138 Met Gln Val Ile Phe Gly Ile Asp Val Lys Glu Val Asp Pro Ala Gly
                   165
                                       170
```

Input Set : A:\L0461.70115US00 SEQUENCE LISTING (SECOND REVISION).txt

```
141 His Ser Tyr Ile Leu Val Thr Cys Leu Gly Leu Ser Tyr Asp Gly Leu
142
                180
                                    185
144 Leu Gly Asp Asp Gln Ser Thr Pro Lys Thr Gly Leu Leu Ile Ile Val
                                200
           195
147 Leu Gly Met Ile Leu Met Glu Gly Ser Arg Ala Pro Glu Glu Ala Ile
148
        210
                            215
150 Trp Glu Ala Leu Ser Val Met Gly Ala Val
151 225
                        230
154 <210> SEQ ID NO: 3
155 <211> LENGTH: 3510
156 <212> TYPE: DNA
157 <213> ORGANISM: Homo sapiens
159 <220> FEATURE:
160 <221> NAME/KEY: CDS
161 <222> LOCATION: (1955)..(3064)
163 <400> SEQUENCE: 3
164 cagggagatg gtggctttgg cgtgcaagac ccatacacga ttcagcagga gggaaaggct 60
165 gggctgtcgg gagtaaatct gaatacctgg aggacaccca aataaaggaa gtccccgtct 120
166 tgtccccctc ccctgcccac caccccccc cccccgcca aatgtctgct ccttctgtca 180
167 getttgggaa teccatgeag gtgtgategt gtggtgeeee tecceaette tgeetgeegg 240
168 gtctcaggga ggtgaggacc ttggtctgag ggttgctaag aagttattac agggttccac 300
169 acttggtcaa cagagggagg agtcccagaa tctgcaggac ccaaggggtg ccccttagt 360
170 gaggactgga ggtacctgca gcccagaaag aagggatgtc acagagtctg gctgtcccct 420
171 gttcttagct ctgaggggac ctgatcagga ttggcactaa gtggcaagct caattttacc 480
172 acaggcagga agatgaggaa ccctcaggga aatggagttt tggtgtaaag gggagatatc 540
173 agecetggae acceeacagg gatgaeagga tgtggeteet tettaetttt gttttggaat 600
174 ctcagggagg tgagaacctt gctctcagag ggtgactcaa gtcaacacag ggaacccctc 660
175 ttttctacag acacagtggg tcgcaggatc tgacaagagt ccaggtaagg aacctgaggg 720
176 aaatetgagg gtacccccag cccataacac agatggggte cccacagaaa tetgccatga 780
177 ccctactgtc actctggaga acccagtcag ggctgtccgc tgagtctccc tgtcttatac 840
178 aaggatcact ggtctctggg agggagaggt gttggtctaa gggagctgca ctcgggtcag 900
179 cagagggagg gtcccagacc ctgccaggag tcaaggtgag gactgagggg acaccattct 960
180 ccaaacgcac aggactcagc cccaccctac cccttctgtc agccacggga attcatgggg 1020
181 aactgggggt agatggactc ccctcacttc ctctttccat gtctcctgga ggtaggacct 1080
182 tggtttaagg aagtggcctc agatcaacaa agggagggtc ccaggtcgta tcaggcatca 1140
183 agaagaggac caagcaggct cctcacccca gtacacatgg acccagctga atatggccac 1200
184 ctcttgctgt cttttctggg aggacctctg cagttgtggc cagatgtggg tcccctcatg 1260
185 tettetattt egtateaggg atgtaagett ttgatetgag agtttettag accageaaag 1320
186 gagcagggtc taggcttttc caggagaaag gtgagagccc cacgtgagca cagaggctcc 1380
187 ccaccccagg gtagtgggga actcacagag tccagcccac cctcctgaca acactgggag 1440
188 gctggggctg tgcttgcagc ctgaaccctg agggcccctc aattcctctt tcaggagctc 1500
189 cagggactgt gaggtgaggc cttggtctaa ggcagtgttt tcaggtcaca gagcagaaag 1560
190 ggcccagaca gtgccaggag tcaaggtgag gtgcatqccc tqaatqtqta ccaaqqqccc 1620
191 cacctgetee aggacaaagt ggaceecact geateagete cacctaceet actgteagte 1680
192 ctggagectt ggectetgee ggetgeatee tgaggageca teteteaett cettetteag 1740
193 gttctcaggg gacagggaga gcaagaggtc aagagctgtg ggacaccaca gagcagcact 1800
194 gaaggagaag acctgtaagt tggcctttgt tagaacctcc agggtgtggt tctcagctgt 1860
195 ggccacttac accetecete tetececagg cetgtgggte eccategeec aagteetgee 1920
197 cacactecca cetgetacce tgateagagt cate atg cet ega get eca aag egt 1975
```

Input Set : A:\L0461.70115US00 SEQUENCE LISTING (SECOND REVISION).txt

198 199	Met Pro Arg Ala Pro Lys Arg 1 5														ſ		
	_	_		_		_	_	_		caa Gln			_			_	2023
206 207	Gly	Leu 25	Glu	Gly	Ala	Gln	Ala 30	Pro	Leu	gct Ala	Val	Glu 35	Glu	Asp	Ala	Ser	2071
210 211	Ser 40	Ser	Thr	Ser	Thr	Ser 45	Ser	Ser	Phe	cca Pro	Ser 50	Ser	Phe	Pro	Ser	Ser 55	2119
										cct Pro 65							2167
			_		_	_	-			cca Pro				_	_	_	2215
										gtt Val							2263
										aag Lys							2311
230										tta Leu							2359
						Leu				ctg Leu 145							2407
237										ctg Leu							2455
		_	_				_	_		agt Ser	-	-			_	_	2503
										gaa Glu							2551
250										ctc Leu							2599
										ggc Gly 225							2647
257					ata					acc Thr							2695
261				aat					tat	gat Asp				cac			2743

Input Set : A:\L0461.70115US00 SEQUENCE LISTING (SECOND REVISION).txt

```
250
  263
                                  255
  265 tat ggg gag ccc agg aag ctg ctc acc caa gat tgg gtg cag gaa aac
                                                                       2791
  266 Tyr Gly Glu Pro Arg Lys Leu Leu Thr Gln Asp Trp Val Gln Glu Asn
          265
                              270
  269 tac ctg gag tac cgg cag gtg cct ggc agt gat cct gca cgg tat gag
                                                                       2839
  270 Tyr Leu Glu Tyr Arg Gln Val Pro Gly Ser Asp Pro Ala Arg Tyr Glu
                          285
                                              290
  273 ttt ctg tgg ggt cca agg gct cat gct gaa att agg aag atg agt ctc
                                                                       2887
  274 Phe Leu Trp Gly Pro Arg Ala His Ala Glu Ile Arg Lys Met Ser Leu
                                          305
  277 ctg aaa ttt ttg gcc aag gta aat ggg agt gat cca aga tcc ttc cca
                                                                       2935
  278 Leu Lys Phe Leu Ala Lys Val Asn Gly Ser Asp Pro Arg Ser Phe Pro
  279
                  315
  281 ctg tgg tat gag gag gct ttg aaa gat gag gaa gag aga gcc cag gac
                                                                       2983
  282 Leu Trp Tyr Glu Glu Ala Leu Lys Asp Glu Glu Glu Arg Ala Gln Asp
              330
                                  335
                                                     340
  285 aga att gcc acc aca gat gat act act gcc atg gcc agt gca agt tct
                                                                       3031
  286 Arg Ile Ala Thr Thr Asp Asp Thr Thr Ala Met Ala Ser Ala Ser Ser
          345
                              350
                                                  355
  289 age get aca ggt age tte tee tac eet gaa taa agtaagacag attetteact 3084
  290 Ser Ala Thr Gly Ser Phe Ser Tyr Pro Glu
-> 291 360
                          365
                                              370
  293 gtgttttaaa aggcaagtca aataccacat gattttactc atatgtggaa tctaaaaaaa 3144
  294 aaaaaaaaa aagttggtat catggaagta gagagtagag cagtagttac attacaatta 3204
  295 aataggagga ataagttcta gtgttctatt gcacaqtagg atgactatag ttaacattaa 3264
  296 gatattgtat attacaaaac agctagaagg aaggcttttc aatattgtca ccaaaaagaa 3324
  297 atgataaatg catgaggtga tggatacact acctgatttg atcattatac tacatataca 3384
  298 tgaatcagaa catcaaattg tacctcataa atatctacaa ttacatgtca gtttttgttt 3444
  299 atgtttttgt ttttttttaa tttatgaaaa caaatgagaa tggaaatcaa tgatgtatgt 3504
  300 ggtgga
  303 <210> SEQ ID NO: 4
  304 <211> LENGTH: 2559
  305 <212> TYPE: DNA
  306 <213> ORGANISM: Homo sapiens
  308 <400> SEQUENCE: 4
  309 tccggggtcg ctcgagccgg ccgggactcg gggatcasaa gtaacggcgg yymkygtkct 60
  310 gagggacagg cttgagatcg gctgaagaga gcgggcccag gctctgtgag gaggcaaggg 120
  311 aggtgagaac cttgctctca gagggtgact caagtcaaca cagggaaccc ctcttttcta 180
  312 cagacacagt gggtcgcagg atctgacaag agtccaggtt ctcaggggac agggagagca 240
  313 agaggtcaag agctgtggga caccacagag cagcactgaa ggagaagacc tgcctgtggg 300
  314 tececatege ecaagteetg eccaeaetee cacetgetae cetgateaga gteateatge 360
  315 ctcgagctcc aaagcgtcag cgctgcatgc ctgaagaaga tcttcaatcc caaagtgaga 420
  316 cacagggeet eqaqqqtqca caggeteece tggetgtqqa qqaqqatget teateateea 480
  318 cctgctatcc tctaatacca agcaccccag aggaggtttc tgctgatgat gagacaccaa 600
  319 atceteccea gagtgeteag atageetget cetececete ggtegttget tecetteeat 660
  320 tagatcaatc tgatgagggc tccagcagcc aaaaggagga gagtccaagc accctacagg 720
  321 teetgeeaga eagtgagtet ttacceagaa gtgagataga tgaaaaggtg actgatttgg 780
  322 tgcagtttct qctcttcaag tatcaaatga aggagccqat cacaaaqgca gaaatactgg 840
```

VERIFICATION SUMMARYDATE: 11/07/2005PATENT APPLICATION: US/09/856,812BTIME: 12:22:41

Input Set : A:\L0461.70115US00 SEQUENCE LISTING (SECOND REVISION).txt

Output Set: N:\CRF4\11072005\I856812B.raw

14 M:271 C: Current Filing Date differs, Replaced Current Filing Date 291 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3 463 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:5